

What is claimed is:

1. A method of generating electric power, comprising:
providing an amount of fuel to start an internal combustion engine as a
5 function of engine temperature, the engine including a number of combustion
chambers and corresponding reciprocating pistons;
determining initial operation of the engine as a function of rotational engine
speed in response to said providing;
controlling engine acceleration from the initial operation to reach a target
10 engine speed at a target time; and
driving an electric power generator with the engine.
2. The method of claim 1, which includes governing speed of the engine after
reaching the target engine speed.
- 15 3. The method of claim 1, wherein the fuel is of a diesel type.
4. The method of claim 1, wherein said controlling includes calculating the
engine acceleration from engine rotational speed and a time period determined
20 relative to the initial operation of the engine.
5. The method of claim 1, wherein said controlling includes regulating fuel
supplied to the engine to provide the engine acceleration calculated to provide the
target speed at the target time.
- 25 6. The method of claim 6, wherein said regulating includes reducing the fuel
if the amount of fuel provided to start the engine exceeds a desired quantity.

7. The method of claim 1, wherein said determining includes detecting performance of the engine at or above at least one of an engine speed threshold and an engine acceleration threshold.

5 8. An electric power generation system, comprising:
an electric power generator;
an internal combustion engine including a crankshaft rotatably coupled to the generator and a number of fuel injectors each operable to fuel a corresponding one of a number of combustion chambers of the engine;
10 an engine temperature sensor;
an engine rotation sensor; and
a controller operatively coupled to the injectors, the engine temperature sensor, and the engine rotation sensor, the controller being operable to: control the injectors to
15 provide a desired an amount of fuel to start the engine as a function of engine temperature determined with the engine temperature sensor, determine an initial engine operating state as a function of rotational engine speed determined with the engine rotation sensor, regulate engine acceleration from the initial engine operating state to reach a target engine speed in a target time by adjusting fueling
20 with the injectors, and regulate engine speed after reaching the target speed to drive the electric power generator.

9. The system of claim 8, further comprising an engine starting device operable to crank the engine to provide a self-sustained operation at the initial
25 operating state.

10. The system of claim 8, further comprising a turbocharger coupled to the engine.

11. The system of claim 8, wherein the controller is included in a panel with an operator control.

12. A system, comprising:

5 an internal combustion engine including a crankshaft and a number of fuel injectors each operable to fuel a corresponding one of a number of combustion chambers of the engine during a respective fueling period;

an electric power generator;

means for sensing engine temperature;

10 means for sensing rotational engine speed;

means for providing an amount of fuel to start the engine as a function of the engine temperature;

means for determining an operating state of the engine as a function of the rotational engine speed;

15 means for controlling engine acceleration from the operating state to reach a target engine speed in a target time; and

means for driving the electric power generator with the engine, the engine being the prime mover for the electric power generator.

20 13. A method, comprising:

providing an amount of fuel to an internal combustion engine, the engine including a number of combustion chambers and corresponding reciprocating pistons;

cranking the engine during said providing to start the engine;

25 determining a start-up operating state of the engine resulting from said cranking;

controlling engine acceleration from the operating state to reach a target rotational engine speed at a target time; and

driving an electric power generator with the engine.

14. The method of claim 13, wherein said determining includes sensing rotation of the engine to provide a rotational speed and comparing the rotational speed of the engine to a threshold.

5 15. The method of claim 13, wherein said determining includes sensing rotation of the engine, calculating an acceleration of the engine based on said sensing, and comparing the acceleration of the engine to a threshold.

10 16. The method of claim 13, wherein said controlling includes reducing fuel provided to the engine before the target speed is reached to reduce smoke output by the engine.

15 17. The method of claim 13, wherein said cranking is performed with a starting device in the form of a starting motor.

18. The method of claim 13, wherein said providing includes fueling the engine with a number of fuel injectors.

20 19. The method of claim 13, which includes governing speed of the engine during said driving.

20. The method of claim 13, wherein the fuel is of a diesel type.